NON-PUBLIC?: N
ACCESSION #: 8907310134
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Oyster Creek, Unit 1 PAGE: 1 of 3

DOCKET NUMBER: 05000219

TITLE: Main Transformer Failure Causes Automatic Reactor Shutdown
EVENT DATE: 06/25/89 LER #: 89-016-00 REPORT DATE: 07/25/89

OPERATING MODE: POWER LEVEL:

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR SECTION
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: Paul Cervenka TELEPHONE: (609) 971-4894

COMPONENT FAILURE DESCRIPTION:
CAUSE: B SYSTEM: EL COMPONENT: XFMR MANUFACTURER: G080
REPORTABLE NPRDS: Y

SUPPLEMENTAL REPORT EXPECTED: NO

ABSTRACT:

On June 25, 1989 at 0008 hours, the main generator tripped due to a phase differential condition caused by a fault in one of the main output transformers. When the generator tripped a turbine trip signal was generated which resulted in an anticipatory reactor scram. The plant was cooled down with the main condensers and the shutdown cooling system and reached a cold shutdown condition at 1100 hours. The cause of this event was equipment failure. Examination of the transformer determined that an internal winding had failed thereby causing the phase differential condition which caused the generator trip. This transient was within the design basis of the plant and had no safety significance. Preparations have been made to remove the failed transformer and install a spare. Until the spare is installed the plant will be operated at half load. No other corrective action was determined necessary.

END OF ABSTRACT

DATE OF OCCURRENCE

The event occurred on June 25, 1989 at 0008 hours.

IDENTIFICATION OF OCCURRENCE

On June 25, 1989 at 0008 hours the reactor automatically shutdown due to an anticipatory turbine trip signal. This event is reportable in accordance with 10CFR50.73(A)(2)(iv).

CONDITIONS PRIOR TO OCCURRENCE

The reactor was at 97% power, with a generator load of approximately 615 megawatts electric.

DESCRIPTION OF OCCURRENCE

On June 25, 1989 at 0008 hours, the main generator (EIIS-EL) tripped due to a phase differential condition caused by a fault in one of the main output transformers (CFI-XFMR). When the generator tripped, a turbine trip signal was generated which resulted in an anticipatory reactor scram. Due to the rapid closure of the turbine stop valves, a reactor pressure spike occurred which peaked at 1067 psig. This caused the automatic actuation of both isolation condensers (EIIS-BL), the lifting of two electromatic relief

valves (CFI-RV.), an automatic trip of all five reactor recirculation pumps (EIIS-AD) and a trip and isolation of the reactor cleanup system (EIIS-CE). The automatic actions that occurred were expected for this type of transient.

The operators controlled reactor pressure and level within the normal post trip bands and promptly secured the isolation condensers when they were no longer needed. Reactor pressure and cooldown was then controlled utilizing the main condenser bypass valves. At approximately 0030 hours operators received a low level scram signal while placing the cleanup system back into service. The operators wanted to establish a letdown path from the reactor prior to raising level to the normal operating band due to past problems with high reactor water levels which can cause a loss of the preferred heat sink, the main condensers. The plant was cooled down further with the shutdown cooling system and reached a cold shutdown condition at 1100 hours.

APPARENT CAUSE OF OCCURRENCE

The cause of this event was equipment failure. Examination of the transformer determined that an internal winding had failed thereby causing the phase differential condition which caused the generator trip. The cause of the internal winding failure is under investigation.

ANALYSIS OF OCCURRENCE AND SAFETY ASSESSMENT

The post transient review group was convened to review this event. The review determined that the plant responded as designed and operator action

was prompt and appropriate. This transient was within the design basis of the plant and had no safety significance.

CORRECTIVE ACTION

Preparations have been made to remove the failed transformer and install a spare. Until the spare is installed the plant will be operated at half load. No other corrective action was determined necessary.

SIMILAR OCCURRENCES

LER 86-004 "Reactor Scram on Anticipatory Turbine Trip"

0753A

ATTACHMENT 1 TO 8907310134 PAGE 1 OF 1

GPU Nuclear GPU Nuclear Corporation
Post Office Box 388
Route 9 South
Forked River, New Jersey 08731-0388
609 971-4000
Writer's Direct Dial Number:

July 25, 1989

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Dear Sir:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
Licensee Event Report

This letter forwards one (1) copy of Licensee Event Report (LER) No. 89-016.

Very truly yours,

E. E. Fitzpatrick
Vice President & Director
Oyster Creek

EEF:BDe:dmd
(0705A:0l)
Enclosures

cc: Mr. William T. Russell, Administrator
Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. Alexander W. Dromerick
U.S. Nuclear Regulatory Commission
Washington, DC 20555

NRC Resident Inspector
Oyster Creek Nuclear Generating Station
Forked River, NJ 08731

GPU Nuclear Corporation is a subsidiary of General Public Utilities Corporation

*** END OF DOCUMENT ***